Complete Summary

GUIDELINE TITLE

Primary care approach to the HIV-infected patient.

BIBLIOGRAPHIC SOURCE(S)

New York State Department of Health. Primary care approach to the HIV-infected patient. New York (NY): New York State Department of Health; 2007 Feb. 27 p. [5 references]

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: New York State Department of Health. Primary care approach to the HIV-infected patient. New York (NY): New York State Department of Health; 2004. 18 p.

COMPLETE SUMMARY CONTENT

SCOPE
METHODOLOGY - including Rating Scheme and Cost Analysis
RECOMMENDATIONS
EVIDENCE SUPPORTING THE RECOMMENDATIONS
BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS
IMPLEMENTATION OF THE GUIDELINE
INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES
IDENTIFYING INFORMATION AND AVAILABILITY
DISCLAIMER

SCOPE

DISEASE/CONDITION(S)

- Human immunodeficiency virus (HIV) infection
- General physical, psychological, and reproductive health

GUIDELINE CATEGORY

Counseling
Evaluation
Management
Prevention
Screening

CLINICAL SPECIALTY

Allergy and Immunology
Family Practice
Infectious Diseases
Internal Medicine
Nursing
Obstetrics and Gynecology
Preventive Medicine

INTENDED USERS

Advanced Practice Nurses
Health Care Providers
Nurses
Physician Assistants
Physicians
Public Health Departments

GUIDELINE OBJECTIVE(S)

To develop guidelines for evaluation and management of human immunodeficiency virus (HIV)-infected patients in primary care

TARGET POPULATION

Human immunodeficiency virus (HIV)-infected patients in primary care

INTERVENTIONS AND PRACTICES CONSIDERED

Evaluation/Assessment

1. General history including
    - Past hospitalizations, past and current illnesses
    - Current prescription and non-prescription medicines
    - Vaccination history
    - Partner information for disclosure of human immunodeficiency virus (HIV) status
    - Occupational history
    - Allergies
    - Reproductive history
2. HIV treatment and staging including
    - HIV exposure history
    - Most recent viral load and CD4 count
    - Current and previous antiretroviral (ARV) regimens
    - Previous adverse ARV drug reactions
    - Opportunistic infections
3. Mental health and substance use history
4. Sexual history
5. Review of systems
6. Comprehensive physical examination including

- Vital signs and pain assessment
- Ophthalmologic assessment and referral
- Oral examination
- Head, ears, nose, and throat examination
- Dermatologic examination
- Lymph node examination
- Endocrinologic examination
- Pulmonary and cardiac examination
- Abdominal examination
- Genital examination
- Rectal examination
- Musculoskeletal examination
- Neuropsychological examination

7. Laboratory assessment and diagnostic testing including
    - Immunologic assessment
    - Virologic assessment
    - Tuberculosis evaluation
    - Screening for sexually transmitted infections
    - Cytologic screening
    - Hematologic assessment
    - Renal and hepatic assessment
    - Metabolic assessment

Management/Counseling

1. Behavioral health counseling and health promotion including
    - Safer sex education
    - Substance use assessment and counseling
    - Smoking cessation education
    - Reproductive counseling
    - Domestic violence screening
    - Psychological assessment
    - Diet and exercise counseling
2. Coordination of care using case management
3. Appropriate use of acute and chronic care services

Prevention

1. Standard health maintenance interventions, such as mammogram, prostate specific antigen (PSA), colorectal cancer screen
2. Opportunistic infection prophylaxis (trimethoprim/sulfamethoxazole, azithromycin, clarithromycin)
3. Immunizations

MAJOR OUTCOMES CONSIDERED

Not stated

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus (Committee)
Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Quality of Evidence for Recommendation

I. Evidence from one or more properly randomized, controlled trial
II. Evidence from one or more well-designed clinical trial without randomization; from cohort or case-controlled studies
III. Evidence from opinions of respected authorities based on clinical experience, descriptive studies, or reports of expert committees

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

AIDS Institute clinical guidelines are developed by distinguished committees of clinicians and others with extensive experience providing care to people with HIV infection. Committees* meet regularly to assess current recommendations and to write and update guidelines in accordance with newly emerging clinical and research developments.

The Committees* rely on evidence to the extent possible in formulating recommendations. When data from randomized clinical trials are not available, Committees rely on developing guidelines based on consensus, balancing the use of new information with sound clinical judgment that results in recommendations that are in the best interest of patients.

* Current committees include:

- Medical Care Criteria Committee
- Committee for the Care of Children and Adolescents with HIV Infection
- Dental Standards of Care Committee
- Mental Health Committee
- Women's Health Committee
- Substance Use Committee
- Physician's Prevention Advisory Committee
- Pharmacy Committee

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

All guidelines developed by the Committee are externally peer reviewed by at least two experts in that particular area of patient care, which ensures depth and quality of the guidelines.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

The quality of evidence (I-III) is defined at the end of the "Major Recommendations" field.

Both human immunodeficiency virus (HIV) Specialists and primary care clinicians should be capable of evaluating HIV-infected patients at all stages of HIV infection. Primary care clinicians should consult with an HIV Specialist when initiating or changing treatment (**III**).

Clinicians should involve patients in decisions regarding HIV treatment (**III**).

Clinicians should schedule routine monitoring visits at least every 4 months for all HIV-infected patients who are clinically stable (**III**).

Baseline History

Clinicians should obtain an HIV-related history at baseline (see Table below titled, "Elements of an HIV-Related History") (**I**).

Clinicians should use vocabulary that patients can understand, regardless of education level, when obtaining the history (**III**).

Clinicians should use translator or sign language services when language barriers exist (**III**).

Clinicians should obtain medical records from past medical providers, including documentation of a positive HIV enzyme-linked immunosorbent assay (ELISA) antibody test result or a positive rapid test result that was confirmed by serum Western blot (**II**).

Clinicians should address the importance of partner notification and stress the confidential nature of discussions regarding sexual history and substance use.

Table: Elements of an HIV-Related History

General history

- Review of sources of past medical care; obtain medical records whenever possible
- Past hospitalizations, past and current illnesses
- Tuberculosis history
    - Possible recent exposure to tuberculosis (TB)
    - History of positive TST (TB skin test, commonly known as purified protein derivative [PPD]), TB disease, or treatment of latent TB infection
- History of hepatitis, if known
- Current prescription and non-prescription medicines, including complementary and alternative medicines and hormones
- Vaccination history
- Reproductive history, including pregnancies, births, termination of pregnancy; current contraceptive use and needs
- Partner information for disclosure of HIV status
- Transfusion or blood product history, especially before 1985
- Allergies
- Travel history/place of birth
- Occupational history and hobbies
- Pets/animal exposures

HIV treatment and staging

- HIV exposure history
    - Date and place of the diagnosis
    - Route of exposure, if known

Table: Elements of an HIV-Related History

- Most recent viral load and CD4 count
- Nadir CD4 and peak viral load
- Drug-resistance testing
- Current and previous ARV regimens and date of initiation of ARV therapy
- Previous adverse ARV drug reactions
- Opportunistic infections (OI)
- Previous adverse reactions to drugs used for OI prophylaxis
- Providers who have been involved in the patient's HIV treatment
- Patient's understanding of HIV disease and treatment

Mental health history

- Mental health diagnoses, especially
    - Depression
    - Anxiety
    - Post-traumatic stress disorder
    - Suicidal/violent behavior
    - Severe and persistent mental illness
- Psychotropic medications
- Past psychiatric hospitalizations
- Contact information for mental health providers if applicable

Substance use history

- Types of drugs; past and current use
    - Street drugs -- marijuana, cocaine, heroin, methamphetamine, methylenedioxymethamphetamine (MDMA)/ecstasy)
    - Illicit use of prescription drugs
    - Alcohol
    - Tobacco
- Frequency of use and usual route of administration
- Risk behaviors -- drug/needle sharing, exchanging sex for drugs, sexual risk-taking while under the influence of drugs or alcohol)
- History of treatment and barriers to treatment

Sexual history

- Current sexual activity
- History of sexually transmitted infections - syphilis, herpes simplex, genital warts, chlamydia, gonorrhea, chancroid
- Sexual practices -- vaginal, anal, oral
- Gender identity
- Past and current partners
- Risk behavior assessment, including use of latex or polyurethane barriers, number of partners

Psychosocial assessment

- Housing status
- Employment and insurance status

Table: Elements of an HIV-Related History

• Educational level
• Family and partner contacts
• Stability of personal relationships
  • Domestic violence screening
• Legal Issues
  • Living will and health care proxy
  • Permanency planning for dependent children
 	
Review of systems
 	
• **Constitutional** – weight loss, malaise, fevers, night sweats, changes in appetite, changes in sleep, adenopathy
• **Eyes** – change in vision, including blurry vision, double vision, flashes of light, or loss of vision
• **Head, ears, nose, throat** – headache, dysphagia, odynophagia, hearing loss, discharge, dental pain, periodontal disease, oral herpes simplex
• **Pulmonary** – cough, dyspnea at rest or on exertion, hemoptysis
• **Cardiac** – chest pain, palpitations, heart murmur
• **Abdominal** – nausea, vomiting, diarrhea, constipation, blood per rectum, hemorrhoids
• **Genitourinary –**
  • Vaginal or penile discharge, vaginal pain, dysuria, genital/rectal warts (human papilloma virus [HPV]), classic and atypical herpes simplex virus
  • OB/GYN – menstrual status, bleeding, infections; last Pap test and result
• **Extremities** – muscle wasting, muscle weakness, muscle pain, joint swelling
• **Neurologic** – cognitive changes, tingling, burning, pain, or numbness in the extremities, weakness

Comprehensive Physical Examination

Clinicians should perform a baseline and annual comprehensive physical examination, with particular attention to areas potentially affected by HIV.

HIV-Related Physical Examination[1]
Vital signs, weight, and symptoms[2] • Assess at each visit **Pain assessment** • Assess at each visit **Ophthalmologic** • Perform or refer for a funduscopic examination[3]

HIV-Related Physical Examination[1]
Head, ears, nose, and throat • Sinus infection • Odynophagia • Dysphagia • Hearing loss **Oral** • Oral candidiasis (thrush) • Hairy leukoplakia (examine lateral borders of tongue) • Kaposi's sarcoma • Gingival disease • Aphthous ulcers **Dermatologic** • Rash • Pruritus • Psoriasis • Molluscum contagiosum • Seborrheic dermatitis • Maceration of the gluteal cleft • Kaposi's sarcoma • Onychomycosis • Diffuse folliculitis with pruritus • Melanoma **Lymph nodes[4]** • Particular attention to axillary, posterior cervical chain, supraclavicular, submental, epitrochlea, femoral **Endocrinologic** • Abnormal subcutaneous fat redistribution **Pulmonary** • Lung fields for wheezes, rhonchi, rales, or dullness **Cardiac examination** • Heart rhythm • Heart murmur • Click or rub **Abdominal**

HIV-Related Physical Examination[1]
• Hepatosplenomegaly • Multiple lipomata in the subcutaneous fat • Increased visceral fat **Genital** • Genitourinary: vaginal or penile discharge, vaginal pain, ulcerative genital disease • OB/GYN: careful pelvic examination **Rectal** • Visible anal lesions or evidence of skin abnormality around the anus • Digital rectal exam • Symptoms: itching, diarrhea, pain **Musculoskeletal** • Extremities • Muscle wasting • Peripheral pulses • Evidence of peripheral vascular disease **Neuropsychological** • Reflex, sensory, motor, and cerebellar function • Signs of multifocal motor and sensory nerve abnormalities especially peripheral neuropathy • Cranial nerves • Cognitive status examination • Mental health and substance use assessment

[1]Except where indicated, each element should be performed at least annually

[2]Assessment of symptoms may require direct questioning because patients may not consider their symptoms important until after the symptoms have already caused significant morbidity.

[3]Patients with CD4 counts <50 cells/mm^3 should be examined by an ophthalmologist at baseline and every 6 months.

[4]Significant abnormalities may present as clusters of large nodes, asymmetry, tenderness, or sudden increases in size or firmness of nodes.

Vital Signs, Symptoms, and General Appearance

Clinicians should assess vital signs and weight at each visit (**III**).

Clinicians should inquire about new symptoms at each visit (**III**).

Clinicians should note changes in general appearance, body habitus, and physical well-being (**III**).

Pain Assessment

Clinicians should ask HIV-infected patients about pain at each visit, as well as document any complaints of pain, attempt to identify underlying causes, and respond with efforts to alleviate it. (**III**)

Clinicians should not deny treatment of pain because of a patient's history of addiction. (**III**)

Clinicians should assess patients with chronic pain for fatigue and mental health disorders and include referral to a pain-management specialist as a treatment option. (**III**)

Ophthalmologic Assessment and Referral

Patients with CD4 counts <50 cells/mm^3 should be examined by an ophthalmologist at baseline and every 6 months. (**III**)

Patients with visual disturbances or unremitting ocular symptoms, regardless of CD4 cell count, should be evaluated by an ophthalmologist. (**III**)

Oral Examination

Clinicians should ascertain whether their patients have a regular oral health provider and should refer all HIV-infected patients for annual hygiene and intraoral examinations, including dental caries and soft-tissue examinations. (**III**).

Genital and Rectal Examination

Clinicians should examine all HIV-infected patients for ulcerative lesions. (**III**)

Clinicians should perform a pelvic examination in women or refer them to a gynecologist at baseline and at least annually. (**II**)

At baseline and as part of the annual physical examination for all HIV-infected adults, regardless of age, clinicians should (**III**):

- Inquire about rectal symptoms, such as itching, bleeding, diarrhea, or pain
- Perform a visual inspection of the anal region
- Perform a digital rectal examination

Clinicians should refer patients with abnormal anal physical findings, such as warts, hypopigmented or hyperpigmented plaques/lesions, lesions that bleed, or any other lesions of uncertain etiology, for high-resolution anoscopy and/or examination with biopsy of abnormal findings.

Neurologic Examination

Clinicians should examine for sensory and motor abnormalities, cerebellar function, motor and sensory abnormalities, especially peripheral neuropathy, and cognitive impairment.

Clinicians should refer patients with more complex suspected or proven peripheral neuropathy syndromes to a neurologist to assist with the diagnosis and management.

Mental Health and Substance Use Assessment

Clinicians should perform a mental health assessment at baseline and at least annually. The assessment should include the following components (**I**):

- Depression, anxiety, post-traumatic stress disorder, suicidal/violent ideation, and substance use
- Sleep habits and appetite assessment
- Psychiatric history, including psychotropic medications
- Psychosocial assessment, including domestic violence and housing status

Clinicians should refer patients to appropriate mental health and substance use treatment providers when indicated. (**II**)

Clinicians should incorporate selected brief screening instruments into the assessment process. The chosen screening instruments should be tailored for optimal use at initial, annual, and interim visits and adjusted for the patient's mental health or substance use history. (**III**)

Laboratory Assessment and Diagnostic Testing

Clinicians should order appropriate laboratory assessments and screening tests for management of HIV-infected patients. (**III**)

Table: Routine Laboratory Assessment and Diagnostic Screening

Assessment	Diagnostic Screen	Frequency
Immunologic Assessment	CD4 lymphocyte count and percentage; to produce reliable results, the same testing laboratory should be used	Baseline and at least every 4 months
Virologic Assessment	• Quantitative HIV ribonucleic acid (RNA) testing for viral load assessment; the same testing laboratory should be used[1] • Resistance testing	Baseline and at least every 4 months 1. Baseline in the setting of acute infection (genotypic testing) and 2. Prior to initiating treatment in ARV therapy-naïve patients (genotypic testing)

Assessment	Diagnostic Screen	Frequency
		and 3. When patients experience virologic failure or incomplete viral suppression while receiving ARV therapy (genotypic and/or phenotypic testing[2])
Tuberculosis Evaluation	• TST[3] or other FDA-approved test for patients with no previous history of TB or no previous positive TST • Chest x-ray for patients known to have a history of TB or known to be TST positive	Baseline and annually
Screening for Sexually Transmitted Infections[4]	Rapid plasma reagin (RPR) or Venereal Disease Research Laboratory (VDRL) for syphilis with verification of positive test by confirmatory fluorescent treponemal antibody absorbance (FTA-Abs) or *Treponema pallidum* particle agglutination (TP-PA)	Baseline and at least annually; every 3 months for patients with continued high-risk behavior
	For female patients: Culture or deoxyribonucleic acid (DNA) amplification test for gonorrhea; immunofluorescence or DNA amplification test for chlamydia	Baseline and at least annually
Cytologic Screening	Cervical Pap tests	• Baseline and then 6 months after baseline; repeat annually, as long as results are normal • Abnormal Pap tests should be repeated every 3 to 6 months until there have been two successive normal Pap tests[5]
	• Anal Pap tests • For men who have sex with men • Any patient with a history of anogenital condylomas • Women with abnormal cervical/vulvar histology	Baseline and annually

Assessment	Diagnostic Screen	Frequency
Hematologic Assessment	Complete blood count, including differential	Baseline and at least every 4 months
Renal Assessment	• Urinalysis • Serum creatinine[6] • Blood urea nitrogen (BUN) • Total protein • Albumin	• Baseline and at least annually • Baseline and at least every 4 months
Metabolic Assessment	• Fasting blood glucose • Fasting lipid profile, including cholesterol	• For patients receiving highly active antiretroviral therapy (HAART): before initiating HAART, 3 to 6 months after initiating, and annually thereafter • For patients not receiving HAART: at baseline and annually
Hepatic Assessment	Serum liver enzymes	Baseline and at least every 4 months for patients receiving ARV therapy
Additional Tests[7]	• Amylase and lipase testing • Hepatitis A serology • Hepatitis B serology • Hepatitis C serology[8] • *Toxoplasma gondii* antibody screening • Varicella antibody screening for adults without a history of chickenpox	Baseline

[1]The initial test performed to measure HIV viral load in an ARV therapy-naïve individual should be a standard viral load assay, not an ultrasensitive test; those with <400 copies/mL should be retested with an ultrasensitive test; the same testing laboratory and the same assay should be used thereafter.

[2]For additional information regarding genotypic and phenotypic testing, refer to *HIV Resistance Assay in Antiretroviral Therapy*.

[3]Tuberculin skin test, commonly known as purified protein derivative (PPD).

[4]Patients who continue to engage in unsafe sexual practices are at increased risk for other sexually transmitted infections (STIs). Patients with any other STIs, whether ulcerative or not, are at higher risk for HIV transmission. Recent increases in STIs among men who have sex with men warrant screening of asymptomatic sexually active patients (see *Atypical Presentations of STDs*).

[5]Colposcopy should be performed for women with abnormal Pap tests. Follow-up would then vary on a case-by-case basis. Women with cervical high-grade intraepithelial lesion [HSIL] should be referred for high-resolution anoscopy.

[6]Routine calculation of estimated glomerular filtration rate is also recommended.

[7]Depending on the patient's history, these additional baseline tests may be needed.

[8]A qualitative hepatitis C virus (HCV) RNA polymerase chain reaction (PCR) should be obtained when no hepatitis antibodies are detectable in a patient with elevated serum liver enzymes and risk factors for HCV.

Immunologic Assessment

The CD4 lymphocyte profile should include both the absolute count and percentage. (**I**)

Virologic Assessment

Clinicians should use a standard viral load assay, not an ultrasensitive test, for initial measurement of HIV viral load in an ARV therapy-naïve individual. (**III**)

Clinicians should obtain viral load before vaccinations and not during intercurrent illness because these situations may lead to a transient elevation in viral load. (**III**)

Clinicians should perform resistance testing under the following circumstances:

- At baseline in the setting of acute HIV infection, regardless of whether ARV therapy is being initiated (genotypic testing)
- In ARV therapy-naïve patients before initiation of ARV therapy (genotypic testing)
- In patients experiencing treatment failure or incomplete viral suppression while receiving ARV therapy (genotypic and/or phenotypic testing)

Clinicians should seek expert consultation for interpretation of genotypes. (**III**)

Tuberculosis Evaluation

Clinicians should obtain a TST (tuberculin skin test, commonly known as PPD) or other U.S. Food and Drug Administration (FDA)-approved test for diagnosis of latent tuberculosis infection, unless the patient has previously tested positive or has had previously documented TB. (**I**)

After active tuberculosis has been excluded clinicians should prescribe TB prophylaxis when a TST results in induration of $\geq$5 mm or when another FDA-approved test indicates the presence of latent TB infection. (**I**).

Rapid Plasma Reagin (RPR) or Venereal Disease Research Laboratory (VDRL) for Syphilis

Clinicians should screen HIV-infected patients for syphilis by obtaining a non-treponemal test (RPR or VDRL) with verification of reactive test by confirmatory fluorescent treponemal antibody absorbance (FTA-Abs) or *Treponema pallidum* particle agglutination (TP-PA) tests at baseline and at least annually. Patients with continued high-risk behavior should be screened for syphilis every 3 months.

Cytologic Screening

Cervical Pap Tests

Clinicians should obtain cervical Pap tests at baseline, 6 months after baseline, and then repeat annually, as long as results are normal.

Colposcopy should be performed for women with abnormal Pap tests (atypical squamous cells of undetermined significance [ASC-US], atypical squamous cells, cannot exclude HSIL [ASC-H], low-grade squamous intraepithelial lesion [LSIL], or high-grade squamous intraepithelial lesion [HSIL], or the World Health Organization [WHO] or cervical intraepithelial neoplasia [CIN] equivalent) Clinicians should repeat abnormal Pap tests every 3 to 6 months thereafter until there have been two successive normal cervical Pap tests. Women with cervical HSIL also should be referred for high-resolution anoscopy.

For women who have undergone hysterectomy:

Clinicians should obtain at least an annual cervical Pap test in HIV-infected women who have undergone a hysterectomy when:

- The hysterectomy was performed because of high-grade dysplasia, HPV-related anogenital dysplasia of the cervix, or carcinoma
- A supracervical hysterectomy (uterus removed and cervix left in place) was performed
- The reason for the hysterectomy cannot be determined by patient self-report or other means
- Any cervical tissue remains

Annual Pap tests are not recommended for HIV-infected women who have undergone a total hysterectomy for reasons not related to cervical abnormalities.

Anal Pap Tests

Clinicians should perform anal Pap tests at baseline and annually in the following populations:

- Men who have sex with men
- Any patient with a history of anogenital condylomas
- Women with abnormal cervical/vulvar histology

Clinicians should refer patients with abnormal anal Pap test findings for high-resolution anoscopy and/or examination with biopsy. (**III**)

Health Promotion and Behavioral Health Counseling

Clinicians should provide routine HIV risk-reduction counseling and behavioral health counseling for HIV-infected patients (see Table 4 in the original guideline document). (**I**)

Safer Sex Education

Clinicians should discuss safer sexual practices with HIV-infected patients on a routine and ongoing basis. (**I**)

Clinicians should routinely discuss with patients the importance of disclosure to partners. Patients should be educated about the options for voluntary partner notification. These discussions should be clearly documented. Information about HIV reporting and partner notification in New York State is available at www.health.state.ny.us. (**I**)

Clinicians should emphasize that transmission of HIV may occur during unprotected sex, even when patients have undetectable HIV plasma viral loads. (**I**)

Clinicians should recommend the correct and consistent use of latex or, when latex allergies exist, polyurethane male condoms and should discuss the option of using polyurethane female condoms. (**I**)

Clinicians should instruct patients in the proper use of condoms, dental dams, and other barriers to reduce HIV transmission. (**I**)

Clinicians should educate their patients to avoid using condoms and creams containing nonoxynol-9. (**I**)

Substance Use Counseling

When current alcohol or other substance use is identified, clinicians should discuss the possible effects of such use on the patient's general health and HIV medications, as well as options for treatment if indicated. These discussions should be properly documented in the patient's chart. (**I**)

Clinicians should evaluate for possible interactions among illicit drugs and prescription drugs. (**I**)

Clinicians should issue prescriptions for new needles and syringes to patients who inject drugs.

Clinicians should discuss with patients other options for accessing new needles and syringes, including use of the Expanded Syringe Access Demonstration Program and Syringe Exchange Programs, New York State's two syringe access initiatives. (**I**)

Clinicians should collaborate with social work staff and other mental health providers, when available, to determine which treatment programs or substance use services best meet the patient's needs. (**I**)

Tobacco Use Assessment and Counseling

Clinicians should assess smoking status and should encourage those who smoke to stop. (**I**) Pharmacotherapy and referrals to smoking cessation programs should be provided if the patient is interested.

Reproductive Counseling

Clinicians should discuss family planning with patients, including risks to the mother and fetus during pregnancy.

Domestic Violence

Clinicians or a member of the healthcare team should screen all male and female HIV-infected patients for current and lifetime domestic violence at baseline and annually. (**I**)

Prior to screening patients for domestic violence, clinicians should discuss confidentiality and exceptions to confidentiality, including instances of suspected child abuse and maltreatment and intent to harm self or others.

Domestic violence screening should be performed only when the patient is alone.

Psychosocial Assessment

The clinician or a member of the healthcare team should perform a psychosocial assessment of HIV-infected patients including housing status, at baseline and at least annually. (**I**) (Refer to Table 4 in the original guideline document).

The clinician should work with the patient's case manager to provide necessary medical guidance related to psychosocial issues that are potential barriers to treatment adherence. (**I**)

Preventive Medicine

Standard Health Maintenance

Clinicians should discuss general preventive health care and health maintenance with all HIV-infected patients routinely and, at a minimum, annually. (**I**)

Clinicians should perform standardized age– and sex–appropriate health-maintenance interventions, such as cancer screening, in HIV-infected patients according to the same guidelines used for non-HIV-infected patients. (**I**) (See Table 5 in the original guideline document).

Clinicians should instruct patients on how to perform breast and testicular self-examinations. (**III**)

Opportunistic Infection Prophylaxis

Clinicians should initiate prophylaxis for specific opportunistic infections as indicated in Table 6 of the original guideline document and discontinue as indicated in Table 7 of the original guideline document. (**I**)

Immunizations

Table: Recommended Immunizations for Non-Pregnant HIV-Infected Adults

Vaccine	Indications	Schedule
Tetanus, Diphtheria, and Pertussis (Tdap), and Tetanus-Diphtheria (Td)	For patients who have not received the primary series	Administer 1 dose of Tdap, followed by a dose of Td at 1 month and a second dose of Td 6 to 12 months later
	For patients who have already received the primary series	Administer 1 dose of Tdap booster every 10 years
Influenza	For all patients	Administer 1 annual dose. Do not use FluMist because it contains live virus.
Pneumococcal polysaccharide	For all patients	Administer 1 dose followed by one revaccination after 5 to 6 years (or more) have elapsed since initial vaccination
Hepatitis A	For patients at increased risk for hepatitis A	Administer 2 doses (0 and 6 to 12 months)
Hepatitis B	For patients without serologic evidence of prior HBV infection or who have not previously received the complete series of HBV vaccination	Strongly encourage the vaccine series—3 doses (0, 1 to 2, and 6 months)
Measles, Mumps, Rubella (MMR)	For all asymptomatic HIV-infected patients who do not have evidence of severe immunosuppression and who are seronegative for antibody to MMR	Administer 1 dose
	For patients with severe immunosuppression (<200 cells/mm^3)	Do not administer vaccine
Human Papillomavirus (HPV)	For women between the ages of 9 and 26 years	Administer 3 doses (at 0, 2, and 6 months)
Varicella	For persons who are susceptible	Consider administering 2 doses (at 0 and 4 to 8 weeks)

Refer to the original guideline document for additional information on immunizations.

Coordination of Care

As part of the initial visit, the clinician or other member of the healthcare team should educate new patients on the following items (**III**):

- How to access emergency services (provide a phone number for 24-hour services)
- Whom to contact to schedule appointments
- How to obtain laboratory and radiology results, medical records, and other reports

After receiving patient consent, clinicians should share information with other agencies from which their patients are receiving services. (**III**)

Case management should be used to enhance coordination of care provided by various agencies such as home care, nutrition services, and nursing services and to prevent duplication of services. (**III**)

Clinicians should regularly involve case managers in case conferences to discuss psychosocial issues that may affect a patient's ability to adhere to care. (**III**)

Appropriate Use of Acute Care Services

Outpatient clinicians who do not provide inpatient care should have a network of practitioners with whom they can communicate easily should their patients require hospitalization. (**III**)

Inpatient clinicians should ensure that the details of hospitalization, including the discharge medications and plans, are sent in a timely fashion to the outpatient clinicians. (**III**)

Appropriate Use of Chronic Care Services

Home Health Care

Home health nurses should be provided with a copy of the patient's medication list and information regarding current medical conditions and mental health or substance use disorders. (**III**)

End-of-Life Care

Clinicians should encourage patients to prepare an advanced directive and designate a health care proxy and should review these arrangements at least annually.

As HIV disease progresses, clinicians should discuss patients' feelings about end-of-life care before they are unable to make decisions. Any medical decisions that are made should be in conjunction with the patient, or, if the patient is unable to decide for neurological reasons, with the patient's health care proxy. (**III**)

Clinicians should be familiar with hospice services available in their area and should make referrals to them early enough for the patient to receive the full benefit of their support. (**III**) Clinicians should work in conjunction with hospice staff to establish which medical interventions may still be appropriate as quality of life evolves or changes. (**III**)

Definitions:

Quality of Evidence for Recommendation

I. Evidence from one or more properly randomized, controlled trial
II. Evidence from one or more well-designed clinical trial without randomization; from cohort or case-controlled studies
III. Evidence from opinions of respected authorities based on clinical experience, descriptive studies, or reports of expert committees

CLINICAL ALGORITHM(S)

An algorithm is provided in the original guideline document for "Screening and Managing Suicidal or Violent Patients."

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting evidence is classified for selected recommendations (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate evaluation and management of human immunodeficiency virus (HIV)-infected patients in primary care

POTENTIAL HARMS

Not stated

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

The AIDS Institute's Office of the Medical Director directly oversees the development, publication, dissemination and implementation of clinical practice guidelines, in collaboration with The Johns Hopkins University, Division of Infectious Diseases. These guidelines address the medical management of adults, adolescents and children with HIV infection; primary and secondary prevention in medical settings; and include informational brochures for care providers and the public.

Guidelines Dissemination

Guidelines are disseminated to clinicians, support service providers and consumers through mass mailings and numerous AIDS Institute-sponsored

educational programs. Distribution methods include the HIV Clinical Resource website, the Clinical Education Initiative, the AIDS Educational Training Centers (AETC) and the HIV/AIDS Materials Initiative. Printed copies of clinical guidelines are available for order from the NYSDOH Distribution Center for providers who lack internet access.

Guidelines Implementation

The HIV Clinical Guidelines Program works with other programs in the AIDS Institute to promote adoption of guidelines. Clinicians, for example, are targeted through the Clinical Education Initiative (CEI) and the AIDS Education and Training Centers (AETC). The CEI provides tailored educational programming on site for health care providers on important topics in HIV care, including those addressed by the HIV Clinical Guidelines Program. The AETC provides conferences, grand rounds and other programs that cover topics contained in AIDS Institute guidelines.

Support service providers are targeted through the HIV Education and Training initiative which provides training on important HIV topics to non-physician health and human services providers. Education is carried out across the State as well as through video conferencing and audio conferencing.

The HIV Clinical Guidelines Program also works in a coordinated manner with the HIV Quality of Care Program to promote implementation of HIV guidelines in New York State. By developing quality indicators based on the guidelines, the AIDS Institute has created a mechanism for measurement of performance that allows providers and consumers to know to what extent specific guidelines have been implemented. Finally, best practices booklets are developed through the HIV Clinical Guidelines Program. These contain practical solutions to common problems related to access, delivery or coordination of care, in an effort to ensure that HIV guidelines are implemented and that patients receive the highest level of HIV care possible.

IMPLEMENTATION TOOLS

Clinical Algorithm
Personal Digital Assistant (PDA) Downloads
Quick Reference Guides/Physician Guides

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

End of Life Care
Getting Better
Living with Illness
Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

New York State Department of Health. Primary care approach to the HIV-infected patient. New York (NY): New York State Department of Health; 2007 Feb. 27 p. [5 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2004 (revised 2007 Feb)

GUIDELINE DEVELOPER(S)

New York State Department of Health - State/Local Government Agency [U.S.]

SOURCE(S) OF FUNDING

New York State Department of Health

GUIDELINE COMMITTEE

Not stated

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Not stated

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: New York State Department of Health. Primary care approach to the HIV-infected patient. New York (NY): New York State Department of Health; 2004. 18 p.

GUIDELINE AVAILABILITY

Electronic copies: Available from the New York State Department of Health AIDS Institute Web site.

AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- Appendix A: quick reference mental health screening guide. New York (NY): New York State Department of Health; 2007 Mar. Electronic copies: Available in Portable Document Format (PDF) from the New York State Department of Health AIDS Institute Web site.

Print copies: Available from Office of the Medical Director, AIDS Institute, New York State Department of Health, 90 Church Street, 13th Floor, New York, NY 10007-2919

This guideline is available as a Personal Digital Assistant (PDA) download from the New York State Department of Health AIDS Institute Web site.

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI on January 17, 2005. This NGC summary was updated by ECRI Institute on September 18, 2007.

COPYRIGHT STATEMENT

DISCLAIMER

NGC DISCLAIMER

The National Guideline Clearinghouse™ (NGC) does not develop, produce, approve, or endorse the guidelines represented on this site.

All guidelines summarized by NGC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public or private organizations, other government agencies, health care organizations or plans, and similar entities.

Guidelines represented on the NGC Web site are submitted by guideline developers, and are screened solely to determine that they meet the NGC

Inclusion Criteria which may be found at http://www.guideline.gov/about/inclusion.aspx .

NGC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or clinical efficacy or effectiveness of the clinical practice guidelines and related materials represented on this site. Moreover, the views and opinions of developers or authors of guidelines represented on this site do not necessarily state or reflect those of NGC, AHRQ, or its contractor ECRI Institute, and inclusion or hosting of guidelines in NGC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding guideline content are directed to contact the guideline developer.

Date Modified: 10/6/2008